

Title (en)

SPACE LOCATION GEOPOSITIONING SYSTEM (SPACELINGS)

Title (de)

GEOPOSITIONIERUNG SYSTEM MIT HILFE VON WELTRAUM LOKALISIERUNG (SPACELINGS)

Title (fr)

GÉOPOSITIONNEMENT PAR LOCALISATION SPATIALE (SPACELINGS)

Publication

EP 3067715 A1 20160914 (EN)

Application

EP 16166050 A 20130301

Priority

- US 201213463566 A 20120503
- EP 13762609 A 20130301

Abstract (en)

A method for determining a global position of a receiver comprises receiving, at the receiver, transponded signals from at least one relay satellite configured to receive downlink signals from a high altitude satellite and generate the transponded signals from the downlink signals; detecting, at the receiver, a first Doppler shift for the transponded signals received from the relay satellite, the first Doppler shift being from the high altitude satellite to the relay satellite; detecting, at the receiver, a second Doppler shift for the transponded signals received from the relay satellite, the second Doppler shift being from the relay satellite to the receiver; determining, at the receiver, an aggregate range between the high altitude satellite and the relay satellite using a time of signal flight between the high altitude satellite and the receiver, the aggregate range including a first range between the high altitude satellite and the relay satellite and a second range between the relay satellite and the receiver; and determining, at the receiver, the global position of the receiver based on the aggregate range between the high altitude satellite and the relay satellite, the first Doppler shift for the transponded signals and the second Doppler shift for the transponded signals.

IPC 8 full level

G01S 19/11 (2010.01); **G01S 1/02** (2010.01); **G01S 13/74** (2006.01); **G01S 19/05** (2010.01); **G01S 19/42** (2010.01)

CPC (source: EP US)

G01S 1/02 (2013.01 - EP US); **G01S 5/0226** (2013.01 - EP US); **G01S 13/74** (2013.01 - EP US); **G01S 19/05** (2013.01 - US); **G01S 19/08** (2013.01 - US); **G01S 19/11** (2013.01 - EP US); **G01S 19/42** (2013.01 - EP US)

Citation (search report)

- [IA] US 6307503 B1 20011023 - LIU XIANGDONG [US]
- [IA] EP 0856957 A2 19980805 - ICO SERVICES LTD [GB]
- [A] EP 0844492 A1 19980527 - LORAL SPACE SYSTEMS INC [US]
- [A] WO 2011073309 A1 20110623 - ASTRIUM SAS [FR], et al
- [A] EP 0245714 A2 19871119 - HALAVAIS RICHARD ARTHUR

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

US 2013293414 A1 20131107; **US 9019155 B2 20150428**; EP 2856208 A2 20150408; EP 2856208 B1 20160525; EP 3067715 A1 20160914; IL 235419 B 20180628; IL 246601 B 20190331; US 2015316655 A1 20151105; US 9766339 B2 20170919; WO 2013180772 A2 20131205; WO 2013180772 A3 20140130

DOCDB simple family (application)

US 201213463566 A 20120503; EP 13762609 A 20130301; EP 16166050 A 20130301; IL 23541914 A 20141030; IL 24660116 A 20160704; US 2013028709 W 20130301; US 201514698666 A 20150428